1-2013

CHMY 223.01: Organic Chemistry II

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CHMY 223: Organic Chemistry II – Spring 2013

Instructor: Orion B. Berryman, Ph.D.
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Office hours: MWF 12:10-1:00pm; room Chem 009 or by appointment

T.A.: Patrick Barney, Recitation - Thursday 5-6pm - Room Chem 212

Prerequisites: Passing grade in CHMY 123, 143 or the equivalent; CHMY 221 C- or better. Organic chemistry is cumulative! Material from CHMY 221 will show up in the quizzes and exams in this course.

Course description and objectives: This course is a continuation of CHMY 221 and consists of an intensive survey of the analysis, structure, reactions and synthesis of the main classes of organic compounds. The course will begin by introducing analytical techniques and instrumentation in the form of separations, UV-Vis spectroscopy, IR spectroscopy, NMR spectroscopy and mass spectrometry. The course will then transition to the nomenclature, properties, reactions, mechanisms and synthesis of carbonyl compounds including: acid chlorides, anhydrides, aldehydes, ketones, esters and carboxylic acids as well as amines.

This course will prepare you for upper division science and engineering programs. You will also come away with an appreciation for the role of organic chemistry in medicine, industry, and biology.
Specific objectives include:

1) Attain a molecular perspective that will enable a greater comprehension of how nature works.
2) Continue to familiarize yourself with organic chemistry and its language.
3) Acquire understanding and experience in spectroscopy to improve chemical problem solving
4) Be able to apply mechanism based solutions to synthesis

Text: Organic Chemistry, Jones & Fleming, 4th Ed.

The study guide (ISBN 978-0-393-93500-4) for the textbook is not required but recommended. This guide gives the answers to all the problems in the book. The ACS also publishes a study guide for the whole two semester sequence which will be useful for the final exams in CHMY 221 and 223 as well as for the PCAT/MCAT etc.

Molecular model kit: Available from the bookstore, former students, online or use your models from General Chemistry.

Online resources: Moodle which can be accessed with your university NetID at ***http://umonline.umt.edu***

Attendance: Attendance is not mandatory but is strongly encouraged. You are responsible for all material presented in class whether you attend or not. Lecture notes will be posted online when possible following the class period.

Homework: Problems will not be graded and will be posted either during lecture or on Moodle. The homework is designed to reinforce the lecture and the text material. Working the homework will prepare you for the tests and quizzes.

Cheating: Academic misconduct will not be tolerated. Punishment will be issued by the instructor and/or by the university. The Student Conduct Code will be maintained and can be reviewed at:

http://life.umt.edu/vpsa/student_conduct.php

As a reminder, notes and other external resources are not allowed during quizzes and examinations unless otherwise specified. Plagiarism will not be tolerated. Copying or looking at another student's examination or quiz is cheating.

Quizzes/Tests: A quiz or exam will be given each Friday at 4:10pm. There will be no early or late exams given. Quizzes will be short and cover recent material. Exams will primarily cover material since the last exam and will require the full period.

Schedule:

Monday	1/28/2013	Spring Semester Classes Begin
Friday	2/1/2013	Quiz #1
Friday	2/8/2013	Quiz #2
Friday	2/15/2013	**Exam #1**
Monday	2/18/2013	Presidents Day – No class
Friday	2/22/2013	Quiz #3
Friday	3/1/2013	Quiz #4
Friday	3/8/2013	**Exam #2**
Friday	3/15/2013	Quiz #5
Friday	3/22/2013	Quiz #6
Friday	3/29/2013	**Exam #3**
Mon-Fri	4/1-5/2013	Spring Break – no class
Friday	4/12/2013	Quiz #7
Friday	4/19/2013	Quiz #8
Friday	4/26/2013	Quiz #9
Friday	5/3/2013	**Exam #4**
Friday	5/10/2013	Quiz #10 – last day of class
Tuesday	5/14/2013	**Final Exam**

Your lowest grade of two quizzes and one exam will be dropped. There will be no additional make-up exams or quizzes.

Grading:

Quizzes:	Best 8 out of 10	25 points each	200 points (25.0%)
Examinations:	Best 3 out of 4	100 points each	300 points (37.5%)
Final Exam:	Best 1 out of 1	300 points	300 points (37.5%)
		Total:	800 points

$100 \geq A \geq 93\%$	$800 \geq A \geq 744$
$93 > A- \geq 90\%$	$744 > A- \geq 720$
$90 > B+ \geq 87\%$	$720 > B+ \geq 696$
$87 > B \geq 83\%$	$696 > B \geq 664$
$83 > B- \geq 80\%$	$664 > B- \geq 640$
$80 > C+ \geq 77\%$	$640 > C+ \geq 616$
$77 > C \geq 73\%$	$616 > C \geq 584$
$73 > C- \geq 70\%$	$584 > C- \geq 560$
$70 > D+ \geq 67\%$	$560 > D+ \geq 536$
$67 > D \geq 63\%$	$536 > D \geq 504$
$63 > D- \geq 55\%$	$504 > D- \geq 440$
$55 > F$	$440 > F$

Additional course policies: No cell phone use in class or during exams or quizzes.
Students with disabilities will receive reasonable modifications in this course. Please request them from me with advance notice, and be prepared to provide verification of disability and its impact from Disability Services for Students. Speak with me to discuss the details. Visit the Disability Services for Students website at http://www.umt.edu/disability.

Caveat: Adjustments or changes to the syllabus may be made throughout the semester. It is the responsibility of the students to learn about these changes if they miss class.